

ABSTRACT

" Communications in Space "

David M. Staff'

Installation, Integration and Test Manager
34m Multifrequency Beam Waveguide Antenna Project

Jet Propulsion Laboratory
California Institute of Technology

This paper provides an overview of the results of the JPL/NASA unmanned exploration of all of the planets of the solar system (except Pluto) as well as the telecommunications capability which was developed to enable/support those missions. The telecommunications link improvements will be described to show increases in data rate capability resulting from addition of ground antenna aperture, transmitter power, coding techniques, lower noise receivers etc. The paper will also describe (briefly) , the current. and future flight missions.

The presentation will be supported by significant numbers of pictures taken during the planetary encounters as well. as pictures of the Deep Space Network Antennas.